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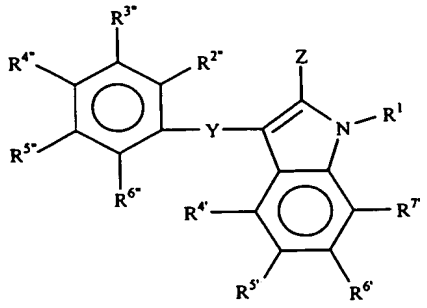
WE CLAIM:

1. A compound of the formula (I):



or its pharmaceutically acceptable salt thereof, wherein

(a) R^1 is hydrogen; acyl; -C(=O)H; -C(=W)H; -C(=O)R^2; -C(=W)R^2; -C(=O)OH; -C(=W)OH; -C(=O)OR^2; -C(=W)OR^2; -C(=O)SH; -C(=W)SH; -C(=O)SR^2; -C(=W)SR^2; -C(=O)NH_2; -C(=W)NH_2; -C(=O)NHR^2; -C(=W)NHR^2; -C(=O)NR^2R^3; -C(=W)NR^2R^3; -C(=W)NH-$(CH_2)_p$-(amino acid) or -$(CH_2)_p$-(amino acid);

(b) $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$, $R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are each independently H; halo (F, Cl, Br or I); -NO_2; -CN; -OH; -OR^2; -SH; -SR^2; -NH_2; -NHR^2; -NR^2R^3; -NHSO_2-C_{1-3}alkyl; -NR^2SO_2-C_{1-3}alkyl; -NHCO-C_{1-3}alkyl; -NR^2CO-C_{1-3}alkyl; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl (such as an optionally substituted or unsubstituted branched or unbranched C_{1-6}alkyl, C_{2-6}alkenyl or C_{2-6}alkynyl, and in particular CH_3, CF_3, vinyl bromide, -CR^2R^2-S$(O)_n$-R^3, -$CR^2R^2NH_2$, -CR^2R^2NHR^2, -$CR^2R^2N R^2R^3$ and -CR^2R^2-C(=O)R^2); alkacyl; optionally substituted or unsubstituted acyl; -C(=O)H; -C(=W)H; -C(=O)R^2; -C(=W)R^2; -C(=O)OH; -C(=W)OH; -C(=O)OR^2; -C(=W)OR^2; -C(=O)-SH; -C(=W)SH; -C(=O)SR^2; -C(=W)SR^2; -C(=O)NH_2; -C(=W)NH_2; -C(=O)NHR^2; -C(=W)NHR^2; -C(=O)NR^2R^3; -C(=W)-NR^2R^3, -C(=W)NH$(CH_2)_p$-(amino acid), a residue of an amino acid or -$(CH_2)_p$(amino acid); wherein if $R^{5'}$ is hydrogen, F, Cl, Br, -NO_2, -CN, -OR^2, -NR^2R^2, -NHSO_2-C_{1-3}alkyl or -NHCO-C_{1-3}alkyl, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen or alternatively, wherein at least two of $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$ are not hydrogen;

(c) Z is optionally substituted or unsubstituted acyl, $-C(=O)NH_2$; $-C(=W)-NH_2$; $-C(=O)NHR^2$; $-C(=W)NHR^2$; $-C(=O)NR^2R^3$; $-C(=W)NR^2R^3$; $-C(=W)NH(CH_2)_p$-(amino acid); a residue of an amino acid, $-(CH_2)_p$-(amino acid); $-C(=O)R^3$; $-C(=O)H$; $-C(=W)H$; $-C(=O)R^2$; $-C(=W)R^2$; $-C(=O)OR^3$; $-C(=O)OH$; $-C(=W)OH$; $-C(=O)OR^2$; $-C(=W)-OR^2$; $-C(=O)-SH$; $-C(=W)SH$; $-C(=O)SR^2$; $-C(=W)SR^2$; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl ~~(such as an optionally substituted or unsubstituted branched or unbranched C_{1-6}alkyl, C_{2-6}alkenyl or C_{2-6}alkynyl, and in particular CH_3~~, CF_3, vinyl bromide, $-CR^2R^2-S(O)_n-R^3$, $-CR^2R^2NH_2$, $-CR^2R^2NHR^2$, $-CR^2R^2NR^2R^3$ and $-CR^2R^2-C(=O)R^2$); -CN, or halo (F, Cl, Br or I);

(d) Y is O, S or $S(O)_n$;

(e) each W is independently O, S, $-NH_2$, $-NHR^2$, $-NR^2R^2$, -N-CN, $-N-NH_2$, $-N-NHR^2$, $-N-NR^2R^3$, -N-OH or $-N-OR^2$;

(f) each R^2 is independently hydrogen or an optionally substituted or unsubstituted branched or unbranched lower alkyl, alkenyl or alkynyl (such as an optionally substituted or unsubstituted branched or unbranched C_{1-3}alkyl, C_{2-4}alkenyl or C_{2-4}alkynyl, and in particular CH_3, CF_3, vinyl bromide, $-CR^2R^2-S(O)_n-R^3$, $-CR^2R^2NH_2$, $-CR^2R^2NHR^2$, $-CR^2R^2NR^2R^3$ and $-CR^2R^2-C(=O)R^2$);

(g) each R^3 is independently hydrogen; optionally substituted or unsubstituted branched or unbranched alkyl, alkenyl or alkynyl (such as an optionally substituted or unsubstituted branched or unbranched C_{1-6}alkyl, C_{2-6}alkenyl or C_{2-6}alkynyl, and in particular CH_3, CF_3, vinyl bromide, $-CR^2R^2-S(O)_n-R^3$, $-CR^2R^2NH_2$, $-CR^2R^2NHR^2$, $-CR^2R^2NR^2R^3$ and $-CR^2R^2-C(=O)R^2$); optionally substituted or unsubstituted aryl (such as phenyl); optionally substituted or unsubstituted heterocycle; optionally substituted or unsubstituted alkylaryl, optionally substituted or unsubstituted alkylhereterocycle, optionally substituted or unsubstituted aralkyl, optionally substituted or unsubstituted heterocycle-alkyl;

(h) each n is independently 0, 1 or 2;

(i) each p is independently 0, 1, 2, 3, 4 or 5; and

(j) wherein if one or more of the optionally substituted branched or unbranched alkyl, alkenyl, alkynyl, lower alkyl, lower alkenyl or lower alkynyl; acyl; aryl; heterocycle; alkaryl; alkheterocycle; arylalkyl or alkylheterocycle substitutents is substituted, then preferably it is substituted with one or more of halogen (F, Cl, Br or I), -OH, $-OR^2$, -SH, $-SR^2$, oxime (defined herein as -CH=N-OH), hydrazine (defined herein as $-NH-NH_2$), -C(=O)H, -C(=W)H, $-C(=O)R^2$, $-C(=W)R^2$, -C(=O)OH, -C(=W)OH, $-C(=O)OR^2$, $-C(=W)OR^2$, -C(=O)SH, -C(=W)SH, $-C(=O)SR^2$, $-C(=W)SR^2$, $-C(=O)NH_2$, $-C(=W)NH_2$, $-C(=O)-NHR^2$, $-C(=W)NHR^2$, $-C(=O)NR^2R^3$, $-C(=W)-NR^2R^3$, $-NH_2$, $-NHR^2$, $-NR^2R^3$, $-NHSO_2-C_{1-3}$alkyl, $-NR^2SO_2-C_{1-3}$alkyl, $-NHCO-C_{1-3}$alkyl, $-NR^2CO-C_{1-3}$alkyl, $-S(O)_n-R^3$, C_{1-3} alkoxy, C_{1-3}thioether, a residue of an amino acid such as $-NH(CH_2)_p$-(amino acid) or $-C(=W)NH(CH_2)_p$-(amino acid).

2. The compound of claim 1, wherein Y is SO_2.

3. The compound of claim 1, wherein Z is an amide.

4. The compound of claim 1, wherein R^1 is hydrogen.

5. The compound of claim 1, wherein

(a) R^1 is hydrogen;

(b) $R^{4'}$, $R^{5'}$, $R^{6'}$ and $R^{7'}$ are independently hydrogen, halogen (F, Cl, Br or I), $-NO_2$, -CN, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}$alkyl, $-NHCO-C_{1-3}$alkyl, oxime, hydrazine, or C_{1-3} alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen (F, Cl, Br or I), $-NR^2R^2$, $-C_{1-3}$ alkoxy or $-C_{1-3}$ thioether; wherein if $R^{5'}$ is hydrogen, F, Cl, Br, $-NO_2$, -CN, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}$alkyl or $-NHCO-C_{1-3}$alkyl, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen;

(c) $R^{2''}$, $R^{3''}$, $R^{4''}$, $R^{5''}$ and $R^{6''}$ are independently hydrogen, halogen (F, Cl, Br or I), $-NO_2$, -CN, -OH, $-OR^2$, $-NR^2R^2$, $-NHSO_2-C_{1-3}$alkyl, $-NHCO-C_{1-3}$alkyl, $-C_{1-5}$ alkoxy, oxime, hydrazine, $-C_{1-5}$ alkyl or alkenyl optionally substituted with one or more of -OH, -SH, -C(O)H, -COOH, halogen (F, Cl, Br or I), $-NR^2R^2$, $-C_{1-5}$ thioether or $-C_{1-5}$ alkoxy;

(d) Z is –CN, -C(=W)NR^2R^3, –C(=O)R^3, –C(=O)OR^3, -CR^2R^2-S(O)$_n$-R^3, -$CR^2R^2NHR^2$, -CR^2R^2-CO-R^3 or substituted or unsubstituted lower alkyl;

(e) Y is O, S, or S(O)$_n$;

(f) each W is independently O, S, -N-CN or -N-OR^2;

(g) R^2 is hydrogen or C_{1-3} alkyl;

(h) R^3 is hydrogen, substituted or unsubstituted alkyl, alkenyl, aryl, or heterocycle, -C_{1-5} alkoxy, -OH, -NR^2R^2, or -$(CH_2)_pC(O)NR^2R^2$,

(i) each n is independently 0, 1 or 2; and

(j) each p is independently 0, 1, 2, 3, 4, or 5.

6. The compound of claim 1, wherein

(a) R^1 is hydrogen;

(b) $R^{4'}$, $R^{5'}$, $R^{6'}$, $R^{7'}$, are independently hydrogen, halogen (F, Cl, Br or I), -NO_2, -CN, -OR^2, -NR^2R^2, -$NHSO_2$-C_{1-3}alkyl, -NHCO-C_{1-3}alkyl, oxime (defined herein as -CH=N-OH), hydrazine (defined herein as -NH-NH_2), or C_{1-3} alkyl or alkenyl optionally substituted with one or more of -OH, -SH, C(O)H, COOH, halogen, NR^2R^2, C_{1-3} alkoxy, or C_{1-3} thioether; wherein if $R^{5'}$ is hydrogen, F, Cl, Br, -NO_2, -CN, -OR^2, -NR^2R^2, -$NHSO_2$-C_{1-3}alkyl or -NHCO-C_{1-3}alkyl, then at least one of $R^{4'}$, $R^{6'}$ and $R^{7'}$ is not hydrogen;

(c) $R^{2"}$, $R^{3"}$, $R^{4"}$, $R^{5"}$, and $R^{6"}$, are independently hydrogen, halogen (F, Cl, Br or I), -NO_2, -CN, -OR^2, -$NHSO_2$-C_{1-3}alkyl, -NHCO-C_{1-3}alkyl, oxime, hydrazine, -C_{1-5} alkyl or alkenyl optionally substituted with one or more of -OH, -SH, C(O)H, COOH, halogen, NR^2R^2, C_{1-5} thioether, or C_{1-5} alkoxy, -C_{1-5} alkoxy, -OH, or -NR^2R^2;

(d) Z is -C(W)NR^2R^3, or -COR^3;

(e) Y is -S(O)$_n$- or -O-, in which n is 0, 1 or 2;

(f) W is O, S, -N-CN or -N-OR^2;

(g) R^2 is hydrogen or C_{1-3} alkyl;

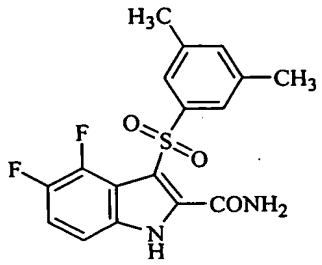
(h) R^3 is C_{1-5} alkyl, C_{1-5} alkenyl, aryl, or heterocycle, substituted with one or more of C(O)NR^2R^2, -NR^2R^2, -$(CH_2)_mC(O)NR^2R^2$, –$(CH_2)_mC(=W)$-

$NH(CH_2)_p$-(amino acid);

(i) each n is independently 0, 1 or 2; and

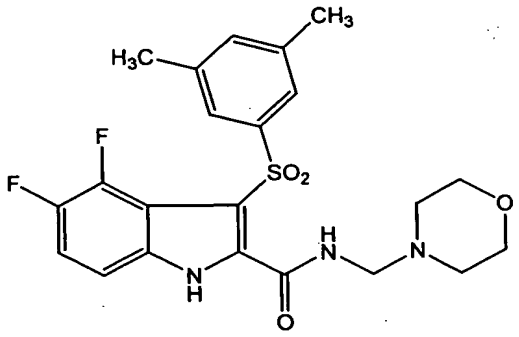
(j) each p is independently 0, 1, 2, 3, 4, or 5.

7. A compound of the formula



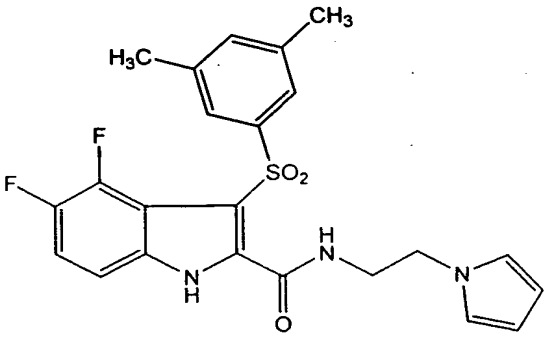
or a pharmaceutically acceptable salt thereof.

8. A compound of the formula



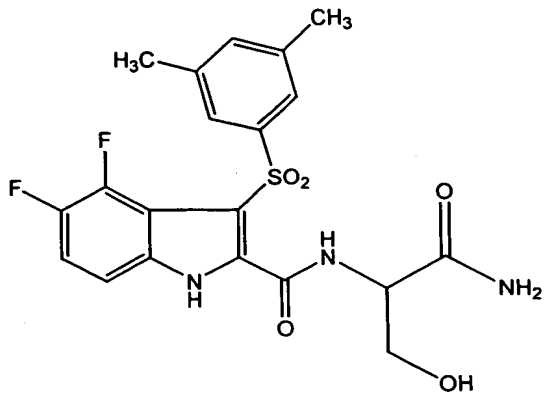
or a pharmaceutically acceptable salt thereof.

9. A compound of the formula



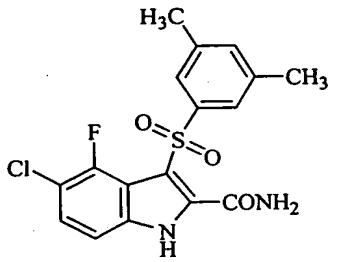
or a pharmaceutically acceptable salt thereof.

10. A compound of the formula



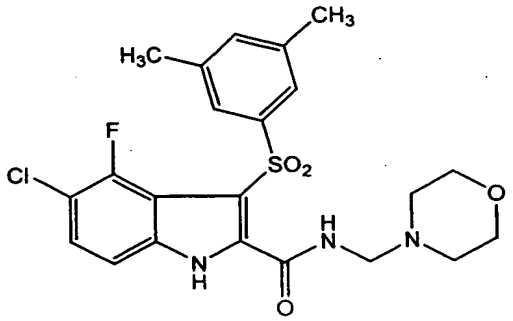
or a pharmaceutically acceptable salt thereof.

11. A compound of the formula



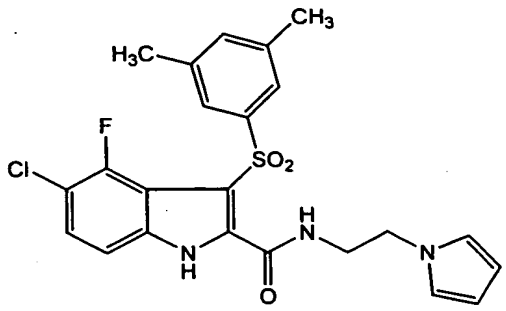
or a pharmaceutically acceptable salt thereof.

12. A compound of the formula



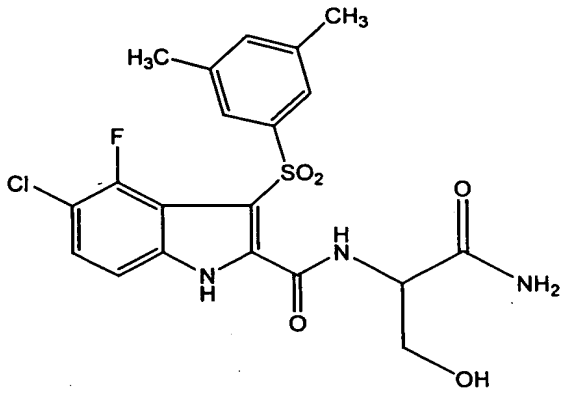
or a pharmaceutically acceptable salt thereof.

13. A compound of the formula



or a pharmaceutically acceptable salt thereof.

14. A compound of the formula



or a pharmaceutically acceptable salt thereof.

15. A pharmaceutical composition comprising an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, together with a pharmaceutically acceptable carrier or diluent.

16. A pharmaceutical composition comprising an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, in combination with one or more other anti-HIV agent, optionally with a pharmaceutically acceptable carrier or diluent.

17. The pharmaceutical composition of claim 16, wherein the other anti-HIV agent is a reverse transcriptase inhibitor.

18. The pharmaceutical composition of claim 17, wherein the reverse transcriptase inhibitor induces a mutation lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase.

19. A method for the treatment or prophylaxis of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

20. A method for the treatment or prophylaxis of an HIV-infection in a host comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

21. The method of claim 20, wherein the other anti-HIV agent is a reverse transcriptase inhibitor.

22. The method of claim 21, wherein the reverse transcriptase inhibitor induces a mutation lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase.

23. A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

24. A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

25. A method for salvage therapy in the treatment or prophylaxis of an HIV-infection in a host, comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

26. A method for salvage therapy in the treatment or prophylaxis of an HIV-infection in a host, comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

27. A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV is resistant to one or more reverse transcriptase inhibitor(s), comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, optionally in a pharmaceutically acceptable carrier or diluent.

28. A method for the treatment or prophylaxis of an HIV-infection in a host, wherein the HIV has a mutation at lysine 103 → asparagine and/or tyrosine 181 → cysteine in HIV reverse transcriptase, comprising administering to said host an effective anti-HIV treatment amount of a compound of claim 1, or its pharmaceutically acceptable salt thereof, in combination and/or alternation with one or more other anti-HIV agent, optionally in a pharmaceutically acceptable carrier or diluent.

29. The method of any one of claims 19-28 wherein the host is a human.